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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

BEVERS 2-3-16-20

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on August 18, 2008

Signature /Elizabeth Schumacher/Typed or printed name Elizabeth Schumacher

Application Number

10/675,575

Filed

September 30, 2003

First Named Inventor

Leonard J. Olmer

Art Unit

1792

Examiner

Jason Mark Heckert

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.  
☐ assignee of record of the entire interest.  
 See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
 (Form PTO/SB/96)

☒ attorney or agent of record. 47500  
 Registration number \_\_\_\_\_

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_



Signature

Ronald J. Corbett

Typed or printed name

972-480-8800

Telephone number

August 18, 2008

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Leonard J. Olmer, et al.

Serial No.: 10/675,575

Filed: September 30, 2003

For: IN-SITU REMOVAL OF SURFACE IMPURITIES PRIOR TO ARSENIC-DOPED POLYSILICON DEPOSITION IN THE FABRICATION OF A HETEROJUNCTION BIPOLAR TRANSISTOR

Grp./A.U.: 1746

Examiner: Jason Mark Heckert

Confirmation No. 9967

Commissioner for Patents  
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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

The Appellants have carefully considered this application in connection with the Examiner's Final Rejection mailed June 18, 2008, and respectfully request a pre-appeal brief review of this application in view of the following arguments.

## ARGUMENTS

The Appellants previous response included amendments to Claims 1, 19 and 35. Claims 1-5, 7, 9-12, 14-20, 22, 24-26, 28 and 30-36 are currently pending in the application.

### **I. Rejection of Claims 15-20, 22-26 under 35 U.S.C. §103**

Examiner continues to reject Claims 1-5, 7, 9-12, 14-20, 22, 24-25, 26, 28 and 30-36 under 35 U.S.C. §103(a) as being unpatentable over the admitted state of the art (ASA) in view of U.S. Patent Publication No. 2002/0098627 to Pomarede *et al.* ("Pomarede").

The Appellants respectfully maintain that the Examiner has not met the statutory requirements of the stated rejection. In particular, the Examiner has not shown how Pomarede teaches or suggests all of the elements of the claimed invention.

Claim 1, in reference to a surface of a first material layer, recites, among other things, "exposing the surface to a nitrogen-containing gas comprising nitrogen fluoride at a temperature of between about 500°C and 800°C and pressure of about 275 Torr to remove the contaminants from the surface." Analogous language is recited in independent Claims 19 and 35

The Examiner acknowledged that Pomerade does not teach a pressure of about 275 Torr (Office Action mailed June 18, 2008, Page 3, Lines 18-19). Nevertheless, the Examiner argues that one of ordinary skill would find it obvious to modify the ASA as disclosed by Pomerade and still somehow arrive at the above-recited pressure of 275 Torr. The Examiner's argument appears to rely on one sentence in Pomerade:

For the given temperature, pressure, remote plasma power, reaction times and reactant concentrations are adjusted to achieve the desired surface conditioning. (Pomerade, Paragraph [0065])

In making this argument, however, the Examiner appears to ignore Pomerade's specific

teaching away from using a pressure of 10 Torr or greater. In the very same paragraph containing the sentence relied on by the Examiner, Pomerade states:

Sources gases provided to the preferred remote plasma generator 60 (FIG. 2) include  $\text{NF}_3$ ,  $\text{F}_2$ ,  $\text{B}_2\text{F}_6$ ,  $\text{Cl}_2$ ,  $\text{CF}_4$ , etc. Argon, helium or other inert gas can also flow to aid formation of glow discharge and serve as carrier gas, but the total flow rates and partial pressures are preferably arranged to keep reaction chamber pressure below about 10 Torr for maintaining operation of the remote plasma unit. (Emphasis added, Pomerade, Paragraph [0065])

Pomerade repeats this admonishment on at least three more places in his specification (see Pomerade, Paragraph [0066], [0087] and [0089]).

Given such clear and repeated teachings by Pomerade of the desirability keeping the chamber pressure below about 10 Torr for maintaining operation of the remote plasma unit, and that the Examiner's modification would be contrary to this, the Appellants maintain that one skilled in the art would have had no motivation to alter the ASA to the pressure of 275 Torr, as suggested by the Examiner. Rather, one of ordinary skill would have had a strong motivation to not alter Pomerade's pressure in the manner suggested by the Examiner, because Pomerade suggests that at such a pressure the operation of the remote plasma unit would not be maintained.

To somehow construe that Pomerade's statement at the end of paragraph [0065] would prompt one of ordinary skill to use a pressure above the level that Pomerade himself uses, is speculative and stretches the teachings of Pomerade beyond its reasonable limits. Rather than supporting the Examiner's rejection, Pomerade's teaching away demonstrates the non-obviousness of the claimed invention.

## II. Conclusion

Because the ASA in view of Pomerade as applied by the Examiner fails to establish a *prima facie* case of obviousness of Claims 1, 19 and 35, and their dependent Claims, the Appellants

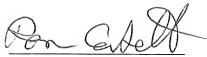
respectfully request the Examiner to withdraw these rejections, and issue a Notice of Allowance for these claims.

The Appellants request the Reviewers to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

HITT GAINES, P.C.

A handwritten signature in black ink, appearing to read "Ron Corbett", written over a horizontal line.

Ronald J. Corbett  
Registration No. 47,500

Dated: August 18, 2008  
P.O. Box 832570  
Richardson, Texas 75083  
(972) 480-8800